FIG. 1A

1 TTTCCTCACTGACTATAAAAGAATAGAGAAGGAAGGGCTTCAGTGACCGGCTGCCTGGCTGACTTACAGCAGTCAGACTCTGACAGGATC
91 ATGGCTATGATGGAGGTCCAGGGGGGACCCAGCCTGGGACAGACCTGCGTGCTGATCGTGATCTTCACAGTGCTCCTGCAGTCTCTCTGT
1 MetAlaMetMetGluValGlnGlyGlyProSerLeuGlyGlnThrCysValLeuIleValIlePheThrValLeuLeuGlnSerLeuCys
181 GTGGCTGTAACTTACGTGTACTTTACCAACGAGCTGAAGCAGATGCAGGACAAGTACTCCAAAAGTGGCATTGCTTGTTTCTTAAAAGAA
31 ValAlaValThrTyrValTyrPheThrAsnGluLeuLysGlnMetGlnAspLysTyrSerLysSerGlyIleAlaCysPheLeuLysGlu
271 GATGACAGTTATTGGGACCCCAATGACGAAGAGAGTATGAACAGCCCCTGCTGGCAAGTCAAGTGGCAACTCCGTCAGCTCGTTAGAAAG
61 AspAspSerTyrTrpAspProAsnAspGluGluSerMetAsnSerProCysTrpGlnValLysTrpGlnLeuArgGlnLeuValArgLys
361 ATGATTTTGAGAACCTCTGAGGAAACCATTTCTACAGTTCAAGAAAAGCAACAAAATATTTCTCCCCTAGTGAGAGAAAGAGGTCCTCAG
91 MetIleLeuArgThrSerGluGluThrIleSerThrValGlnGluLysGlnGlnAsnIleSerProLeuValArgGluArgGlyProGln
451 AGAGTAGCAGCTCACATAACTGGGACCAGAGGAAGAAGCAACACATTGTCTTCTCCAAACTCCAAGAATGAAAAGGCTCTGGGCCGCAAA
121 ArgValAlaAlaHisIleThrGlyThrArgGlyArgSerAsnThrLeuSerSerProAsnSerLysAsnGluLysAlaLeuGlyArgLys
541 ATAAACTCCTGGGAATCATCAAGGAGTGGGCATTCATTCCTGAGCAACTTGCACTTGAGGAATGGTGAACTGGTCATCCATGAAAAAGGG
151 IleAsnSerTrpGluSerSerArgSerGlyHisSerPheLeuSerAsnLeuHisLeuArgAsnGlyGluLeuValIleHisGluLysGly
631 TTTTACTACATCTATTCCCAAACATACTTTCGATTTCAGGAGGAAATAAAAGAAAACACAAAGAACGACAAACAAATGGTCCAATATATT
181 PheTyrTyrIleTyrSerGlnThrTyrPheArgPheGlnGluGluIleLysGluAsnThrLysAsnAspLysGlnMetValGlnTyrIle
721 TACAAATACACAAGTTATCCTGACCCTATATTGTTGATGAAAAGTGCTAGAAATAGTTGTTGGTCTAAAGATGCAGAATATGGACTCTAT
211 TyrLysTyrThrSerTyrProAspProIleLeuLeuMetLysSerAlaArgAsnSerCysTrpSerLysAspAlaGluTyrGlyLeuTyr
811 TCCATCTATCAAGGGGGAATATTTGAGCTTAAGGAAAATGACAGAATTTTTGTTTCTGTAACAAATGAGCACTTGATAGACATGGACCAT
241 SerIleTyrGlnGlyGlyIlePheGluLeuLysGluAsnAspArgIlePheValSerValThrAsnGluHisLeuIleAspMetAspHis
901 GAAGCCAGTTTTTTCGGGGCCTTTTTAGTTGGCTAACTGACCTGGAAAGAAAAAGCAATAACCTCAAAGTGACTATTCAGTTTTCAGGAT
271 GluAlaSerPhePheGlyAlaPheLeuValGlyStp
991 GATACACTATGAAGATGTTTCAAAAAATCTGACCAAAACAAACAAACAGAAA

FIG. 1B

B B' C' C

41BBL 80 DPAGLLDLRQGMFAQLVAQ---------NVLLIDGPL-----SWYSDPGLAGVSLTG-GLSYKEDTKELVVA
OX40L 52 VSH---RYPRIQSIKVQFT----------------EYKKEKG-----F--ILTS---QKEDE-IMKVQNN--SVIIN
CD27L 45 QQQLPLESLGWDVAELQLN--------HTGPQQDPRL-----YWQGGPALGRSFLH--GPELDKG--QLRIH
CD30L 87 LCILKRAPFKKSWAYLQVA--------KHLNKTKL-----SWNKD-----GILH--GVRYQDG--NLVIQ
TNF 77 VRSSSRTPSDKPVAHVVAN--------PQAEGQL-----QWLNRRAN--ALLAN-GVELRDN--QLVVP
LTb 77 EEPETDLSPGLPAAHLIGA---------PLKGQGL-----GWETTKEQ--AFLTS-GTQFSDA-EGLALP
LTa 52 PKHHLAHSTLKPAAHLIGD--------PSKQNSL-----LWRANTDR--AFLQD-GFSLSNN--SLLVP
CD40L 113 MQ--KGDQNPQIAAHVISE---------ASSKTTSVL-----QWAEKGYY--TMSNN-LVTLENG-KQLTVK
Apo1L 134 PSPPPEKKELRKVAHLTGK---------SNSRSMPL-----EWEDTYGIV-VLLS--GVKYKKG--GLVIN
Apo2L 114 VRE---RGPQRVAAHITGTRGRSNTLSSPNSKNEKALGRKINSWESSRSGH-SFLS--NLHLRNG--ELVIH

D E F

41BBL 137 KAGVYYVFFQLELRRVVAGEGS----GSVSLALHLQPLRSAAGAAALALTVDLPPAS---------
OX40L 97 CDGFYLIISLKGYF-SQE------------VNISLH-YQKDE--EP-LFQLKKVRSVN---------
CD27L 100 RDGIYMVHIQVTLAICSSTTASRH--HPTTLAVGICSPAS----RSISLLRLSFH---------
CD30L 135 FPGLYFIICQLQFLVQCP-------NNSVDLKLELLINKHI---KKQALVTVCES---------
TNF 128 SEGLYLIYSQVLFKGQGCP------STHVLLTHTISRIAVSY-QTKVNLLSAIKSPCQRETPE---
LTb 129 QDGLYYLYCLVGYRGRAPPGGGDPQGRSVTLRSSLYRAGGAYGPGTPELLLEGAETVTPVLDPARR
LTa 103 TSGIYFVYSQVVFSGKAYSPKAT--SSPLYLAHEVQLFSSQY-PFHVPLLSSQKMVYPGL------
CD40L 165 RQGLYYIYAQVTFCSNREA-----SSQAPFIASLCLKSPGR---FERILLRAANTHSSAK------
Apo1L 186 ETGLYFVYSKVYFRGQSC-------NNLPLSHKVYMRNSKY-PQDLVMMEGKMMSYCTT------
Apo2L 178 EKGFYYIYSQTYFRFQEEIKENTK--NDKQHVQYIYKYTS-Y-PDPILLMKSARNSCWSKDA----

G H I

41BBL 190 ----SEARNSAFGFQGRLLHLS-AGQRLGVHLHTEARARHAWQLTQGATVLGLFRVTPEIPAGLPSPRSE
OX40L 137 --------SLMVASLTYKDK-----VYLNVTTDNT-SLDDFHVNGGELILIHQNPGEFCVL
CD27L 149 ----FHQGCTIVSQRLTPLAR---GDTLCTNLTGTL-LPSRNTD-------ETFFGVQWVRP
CD30L 180 ---GMQTKHVYQNLSQFLLDYLQVNTTISVNVDTFQYI-DTSTFPLEN--VLSIFLYSNSD
TNF 184 GAEAKPWYEPIYLGGVFQLEK---GDRLSAEINRPDYL-DFAESG------QVYFGIIAL
LTb 195 QGYGPLWYTSVGFGGLVQLRR---GERVYVNISHPDMV-DFARG-------KTFFGAVMVG
LTa 160 ---QEPWLHSMYHGAAFQLTQ---GDQLSTHTDGIPHLVLSPST------VVFFGAFAL
CD40L 217 ----PCGQQSIHLGGVFELQP---GASVFVNVTDPSQVSHGTG-------FTSFGLLKL
Apo1L 237 ---GQMWARSSYLGAVFNLTS---ADHLYVNVSEL-SLVNFEES-------QTFFGLYKL
Apo2L 236 ---EYGLY-SIYQGGIFELKE---NDRIFVSVTNE-HLIDMDHE--------ASFFGAFLVG

FIG. 1C

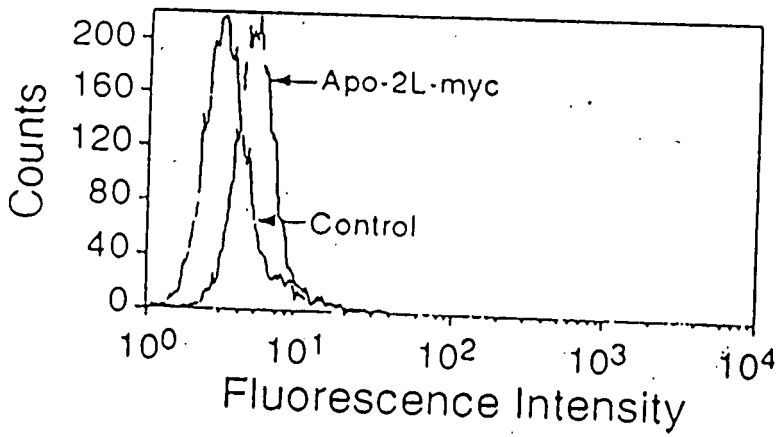


FIG. 1D

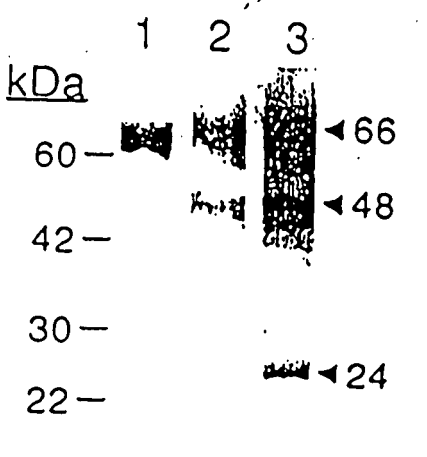


FIG. 1E

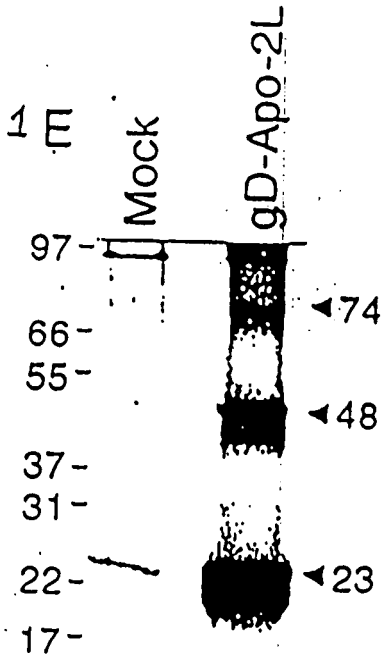


FIG. 2A 9D cells

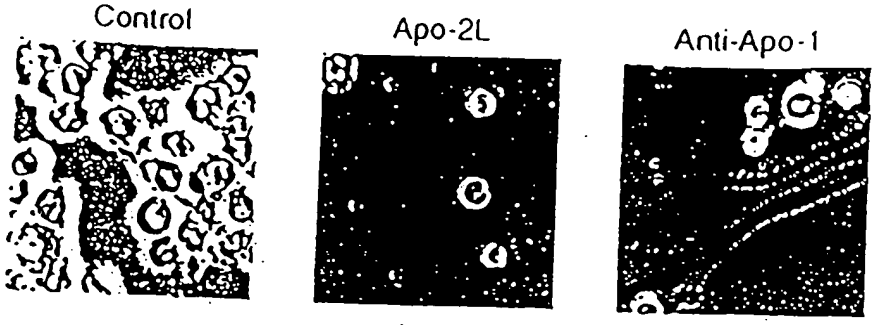


FIG. 2B 9D cells

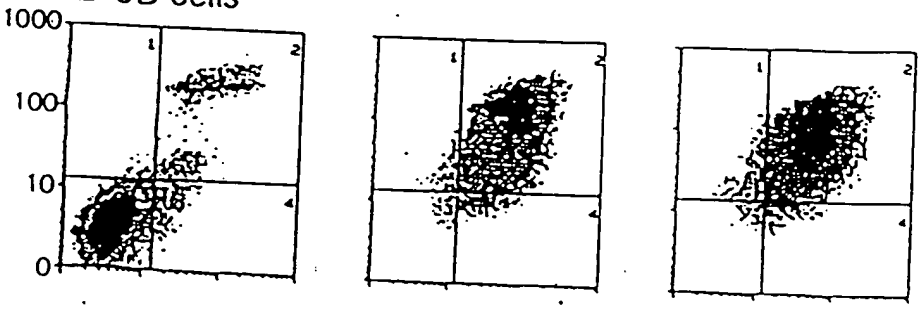


FIG. 2C Raji cells

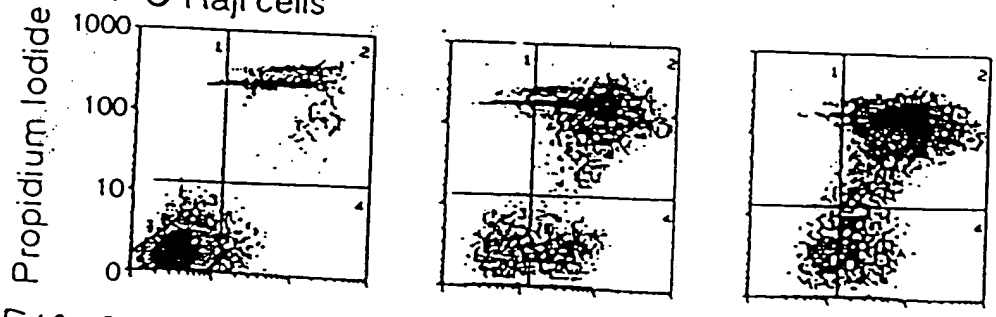


FIG. 2D Jurkat cells

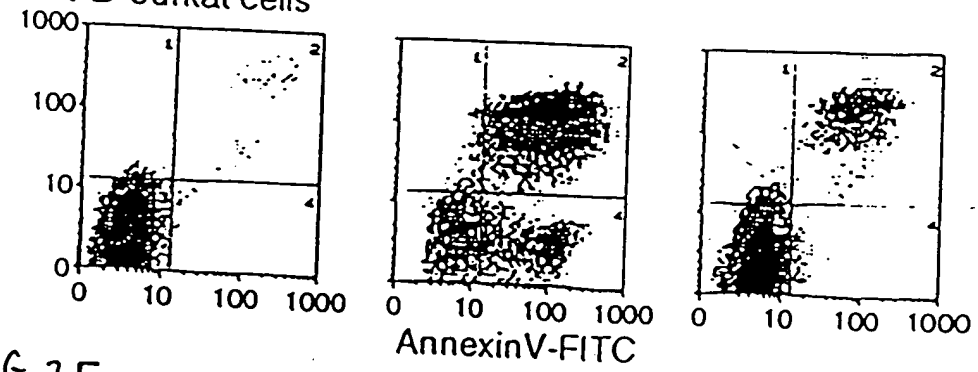


FIG. 2E

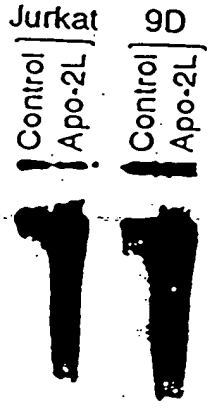


FIG. 3 A

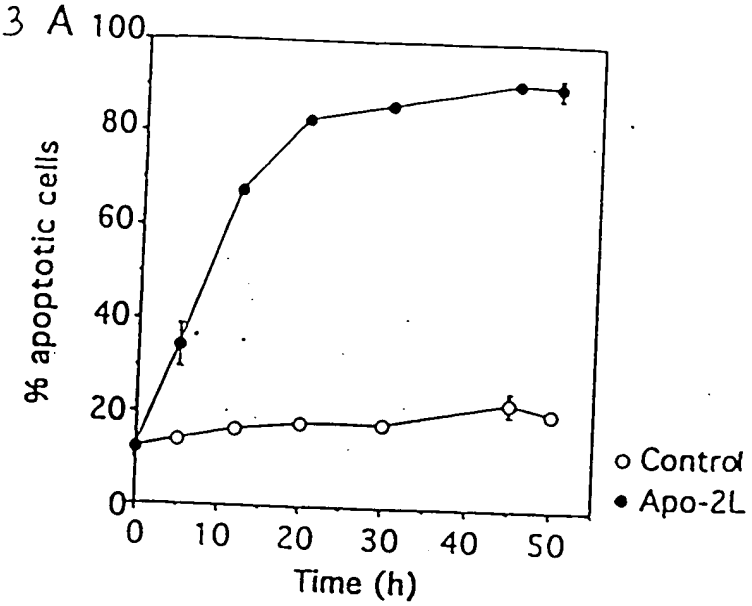


FIG. 3 B

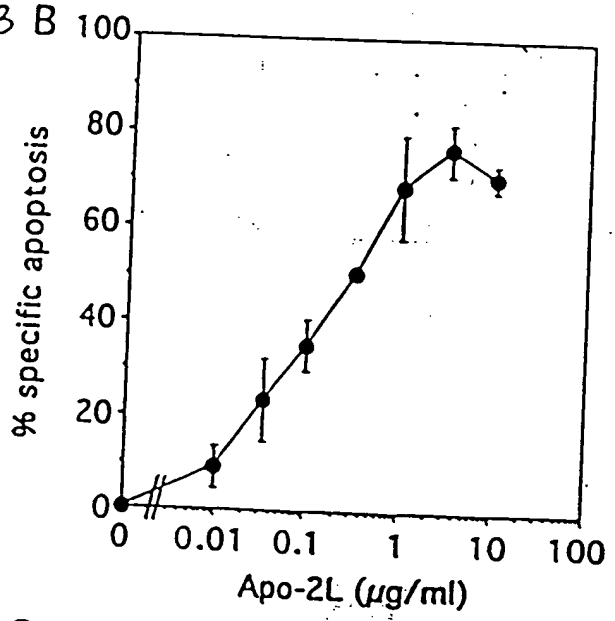


FIG. 3C

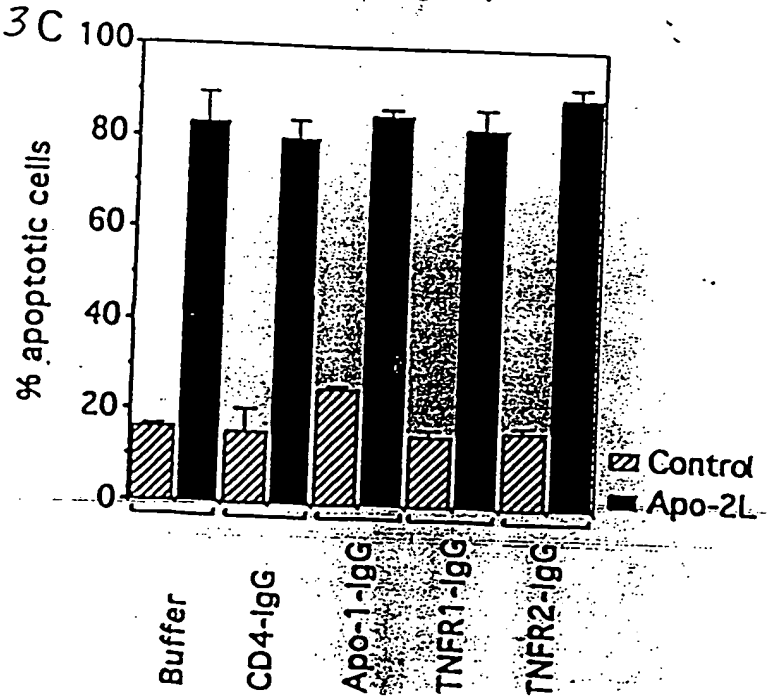
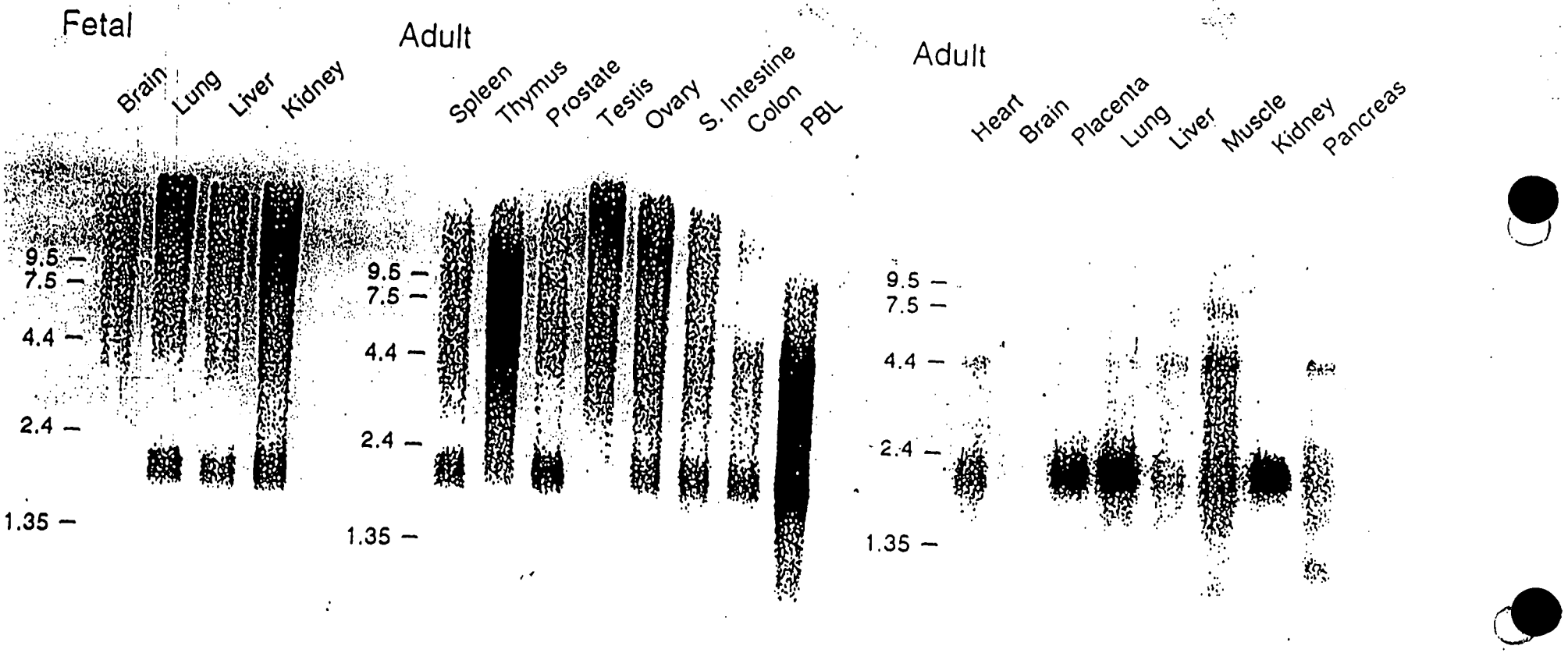


FIG. 4



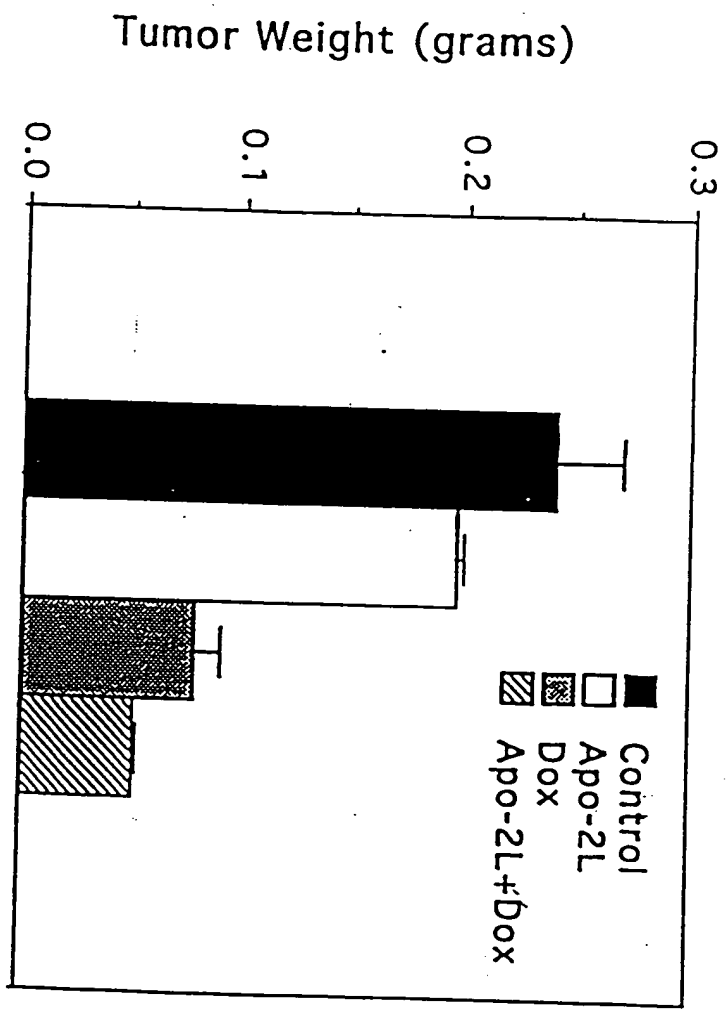


Fig. 5

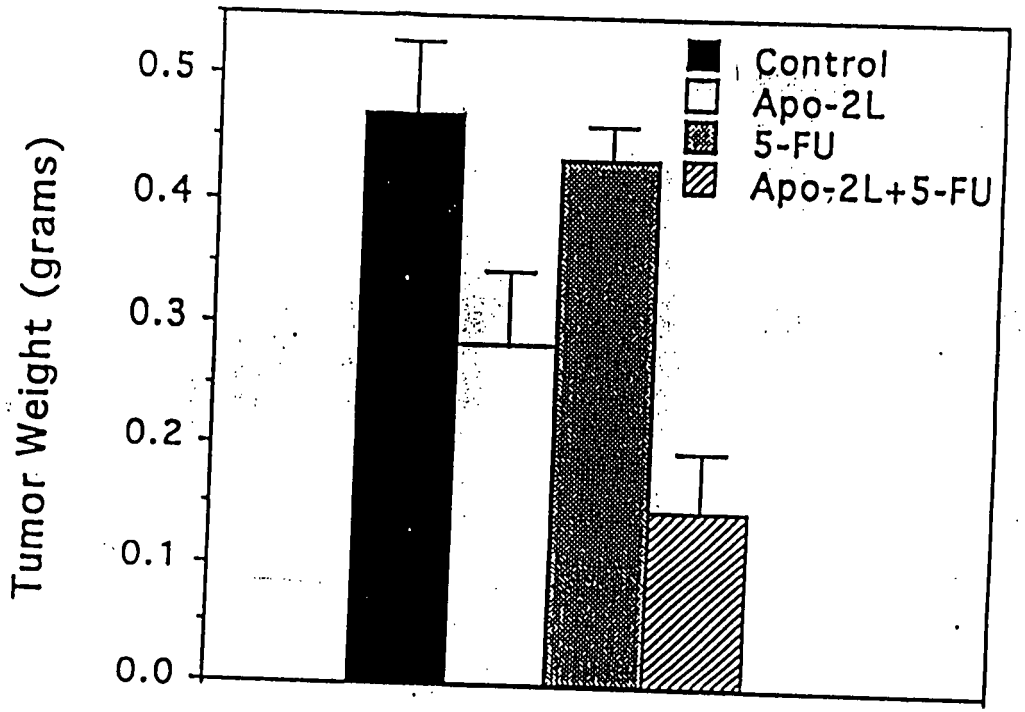


Fig. 6

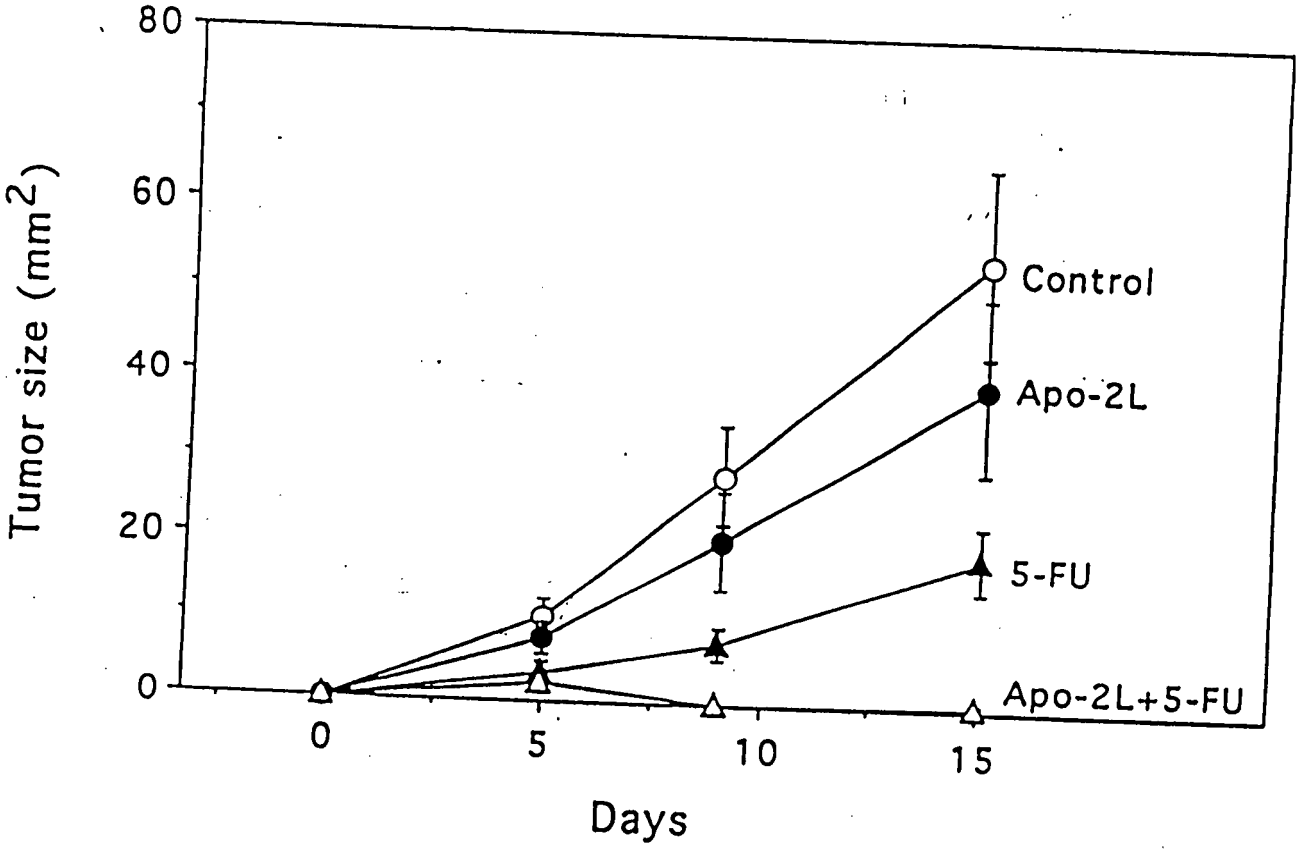


Fig. 7

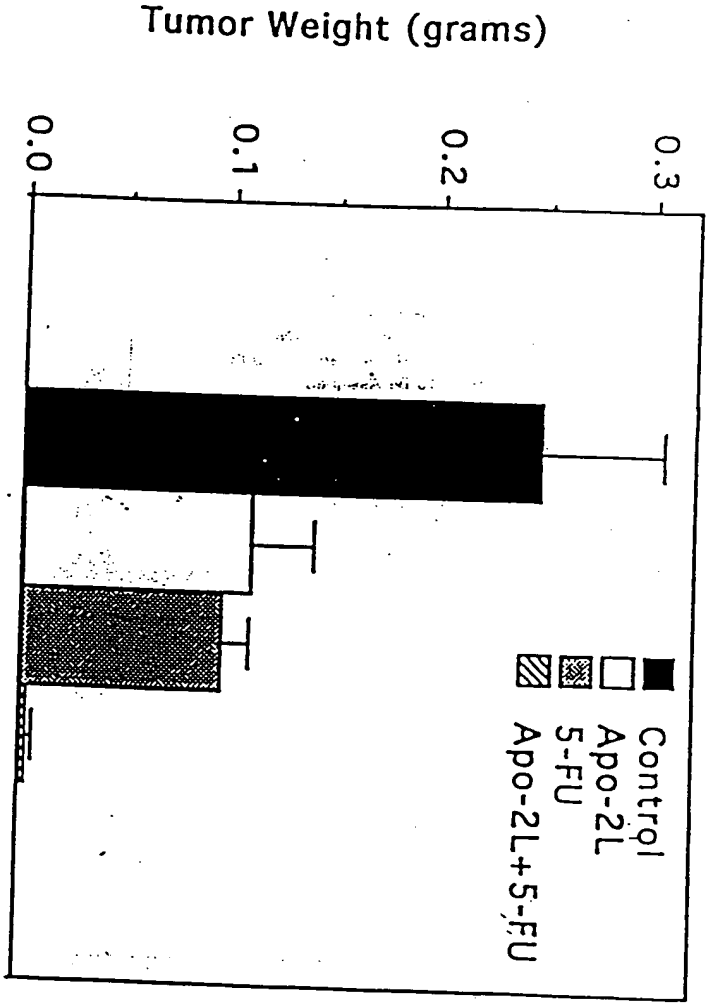


Fig. 8

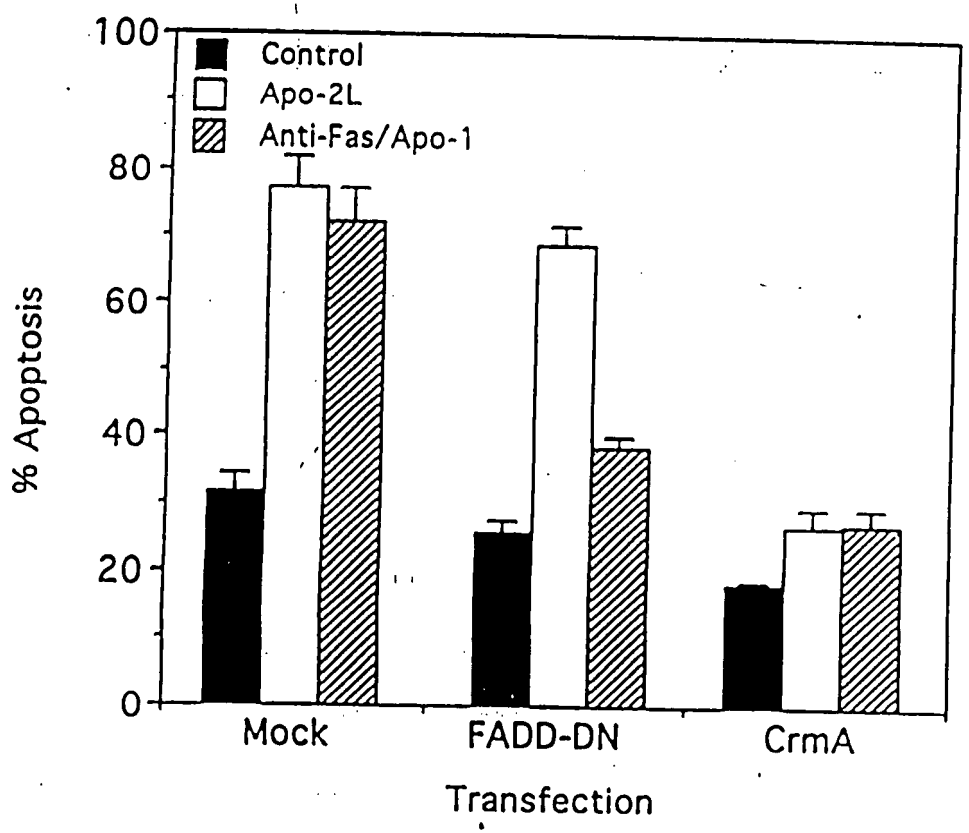

100
80
60
40
20
0
% Apoptosis
Control
Apo-2L
Anti-Fas/Apo-1
Mock
FADD-DN
CrmA
Transfection

Fig. 9

Fig. 10

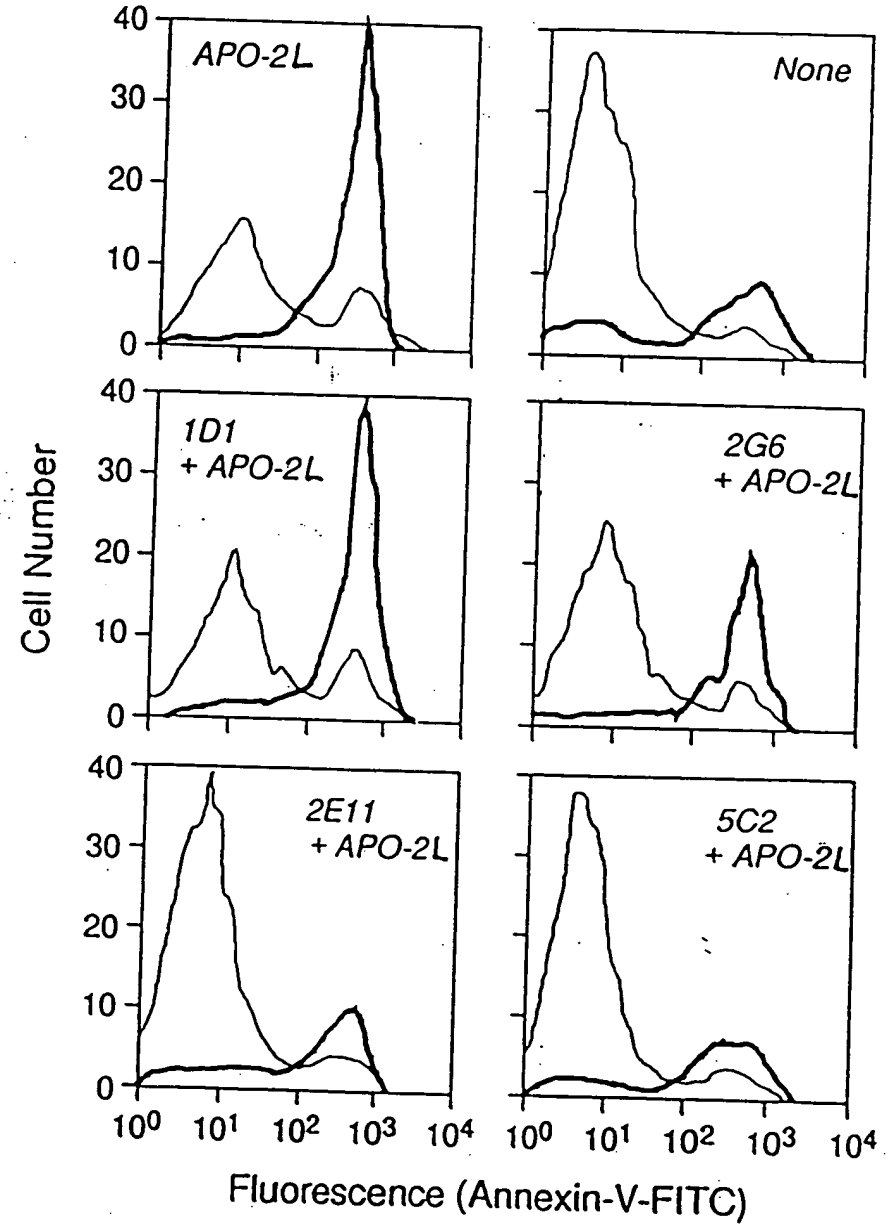

APO-2L
None
1D1
+ APO-2L
2G6
+ APO-2L
2E11
+ APO-2L
5C2
+ APO-2L
Cell Number
Fluorescence (Annexin-V-FITC)
0
10
20
30
40
10^0
10^1
10^2
10^3
10^4

Fig. 11

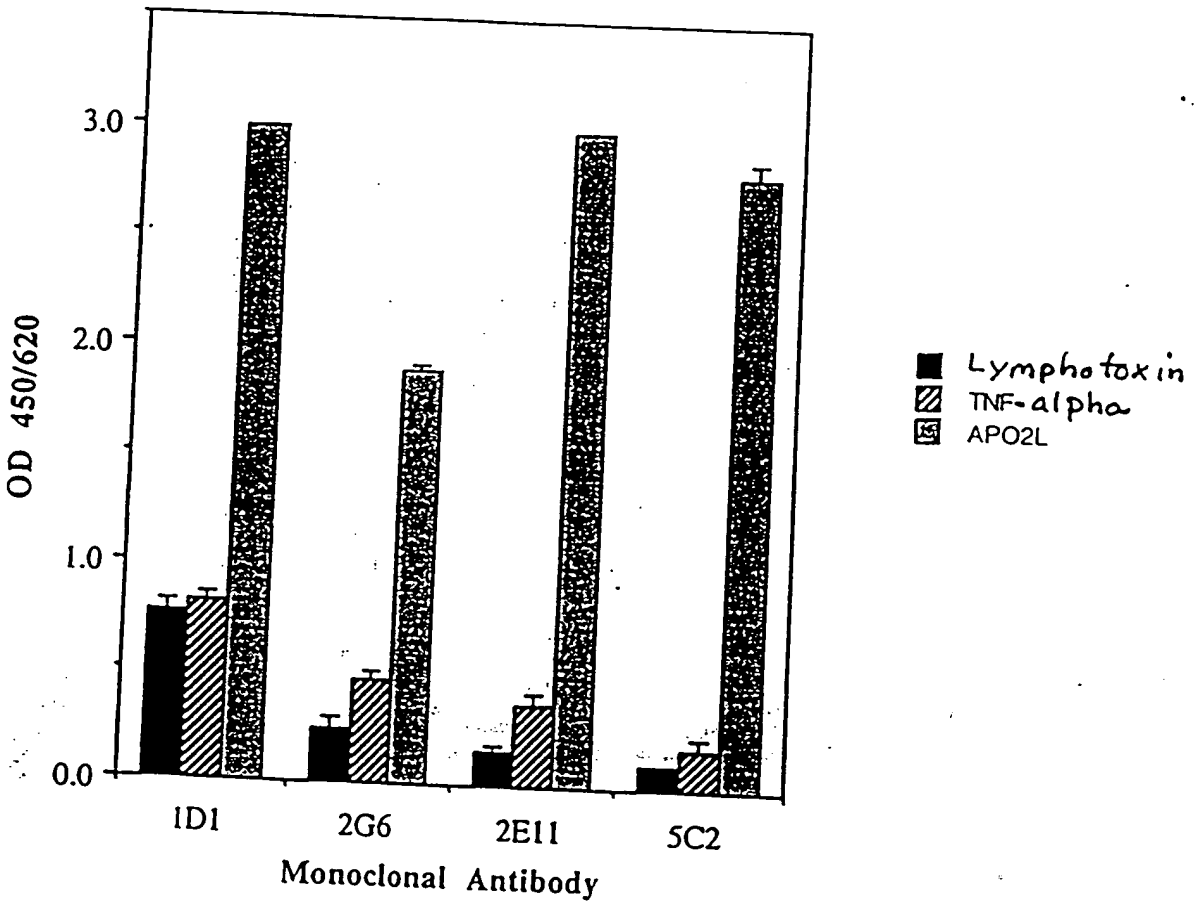

3.0
2.0
1.0
0.0
OD 450/620
1D1
2G6
2E11
5C2
Monoclonal Antibody
Lymphotoxin
TNF-alpha
APO2L

Fig. 12

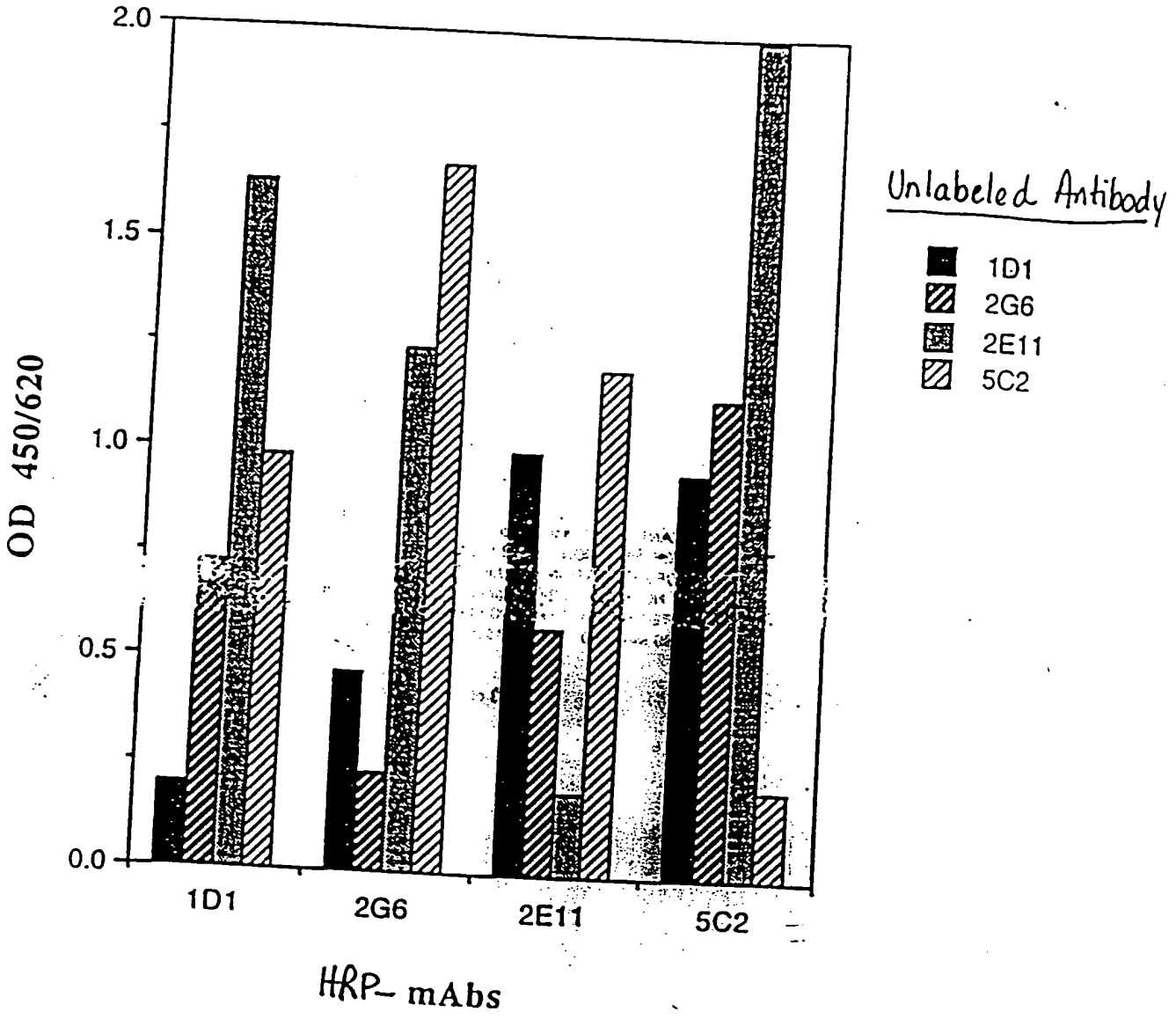

2.0
1.5
1.0
0.5
0.0
OD 450/620
1D1
2G6
2E11
5C2
HRP- mAbs
Unlabeled Antibody
1D1
2G6
2E11
5C2

Fig. 13

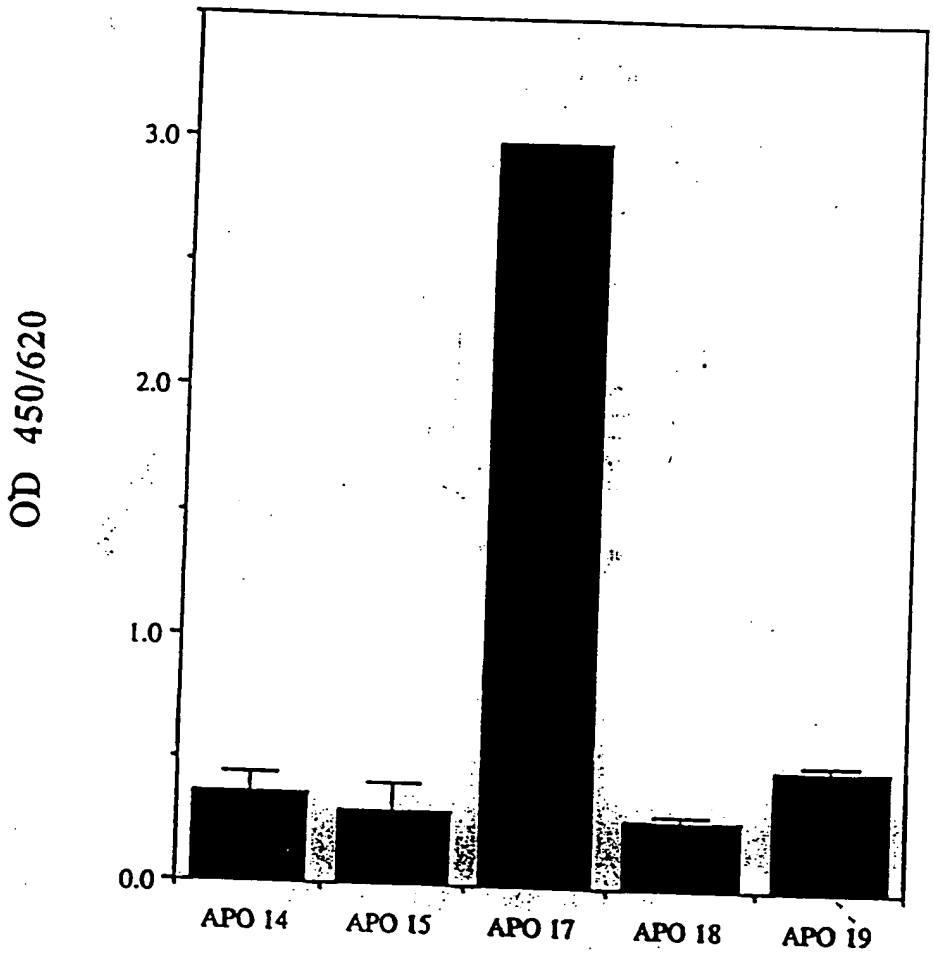
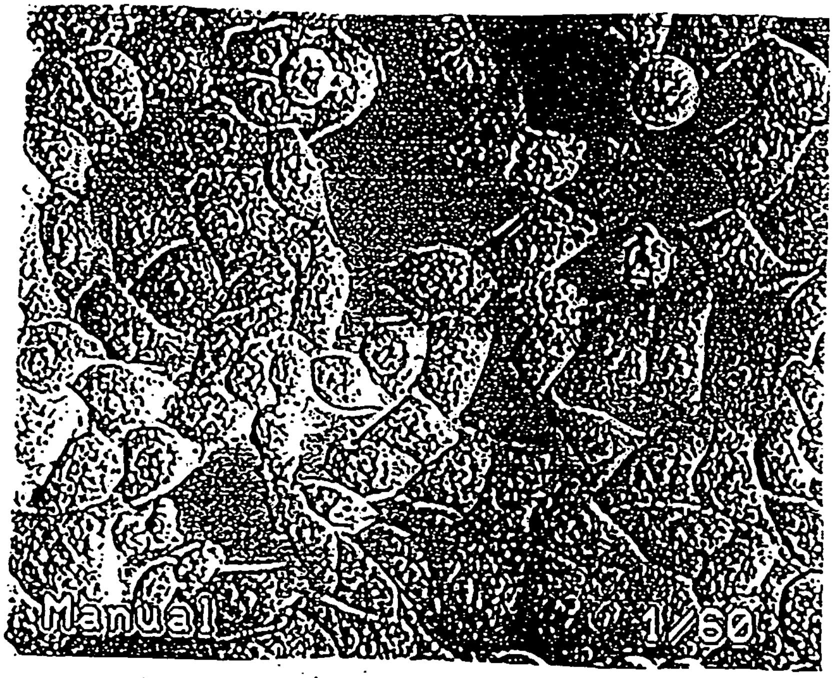
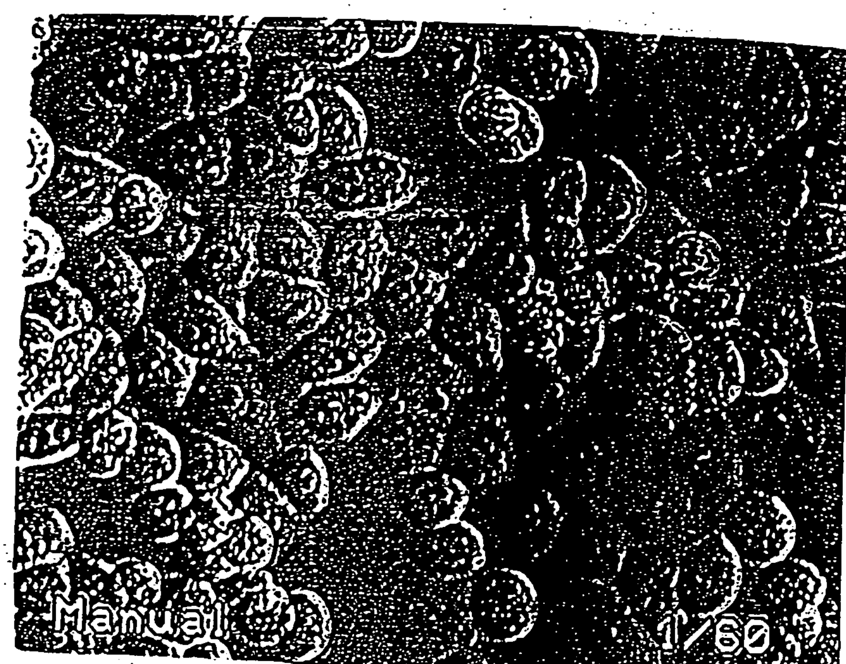

OD 450/620
3.0
2.0
1.0
0.0
APO 14
APO 15
APO 17
APO 18
APO 19
Synthetic peptide

Fig. 14A



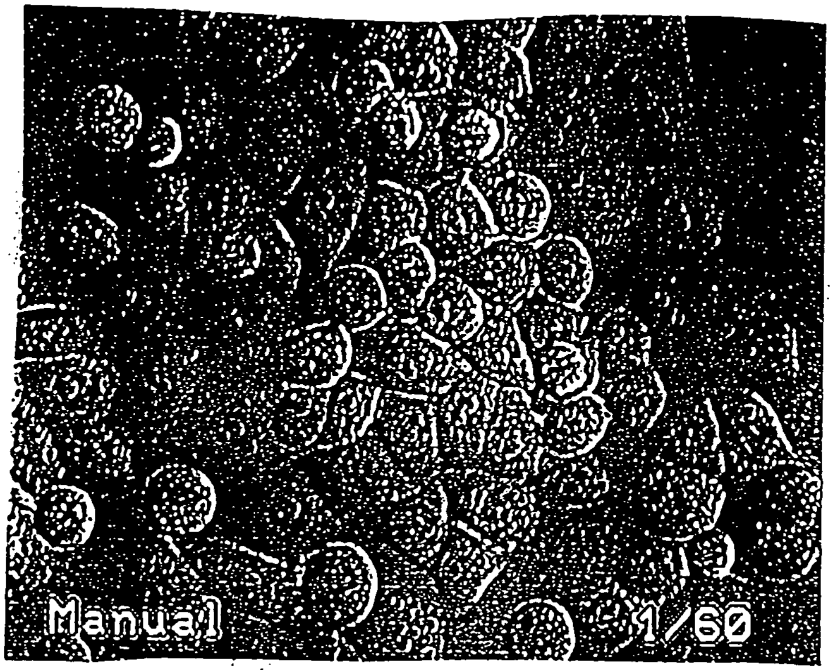
Unconditioned Medium

Fig. 14B



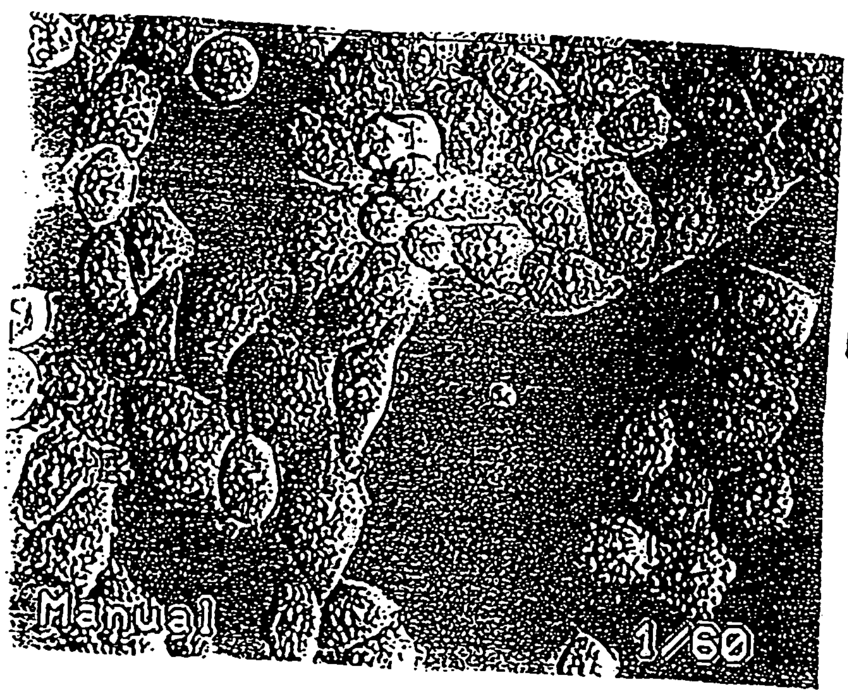
1:10

Fig. 14C



1:20

Fig. 14D



1:40

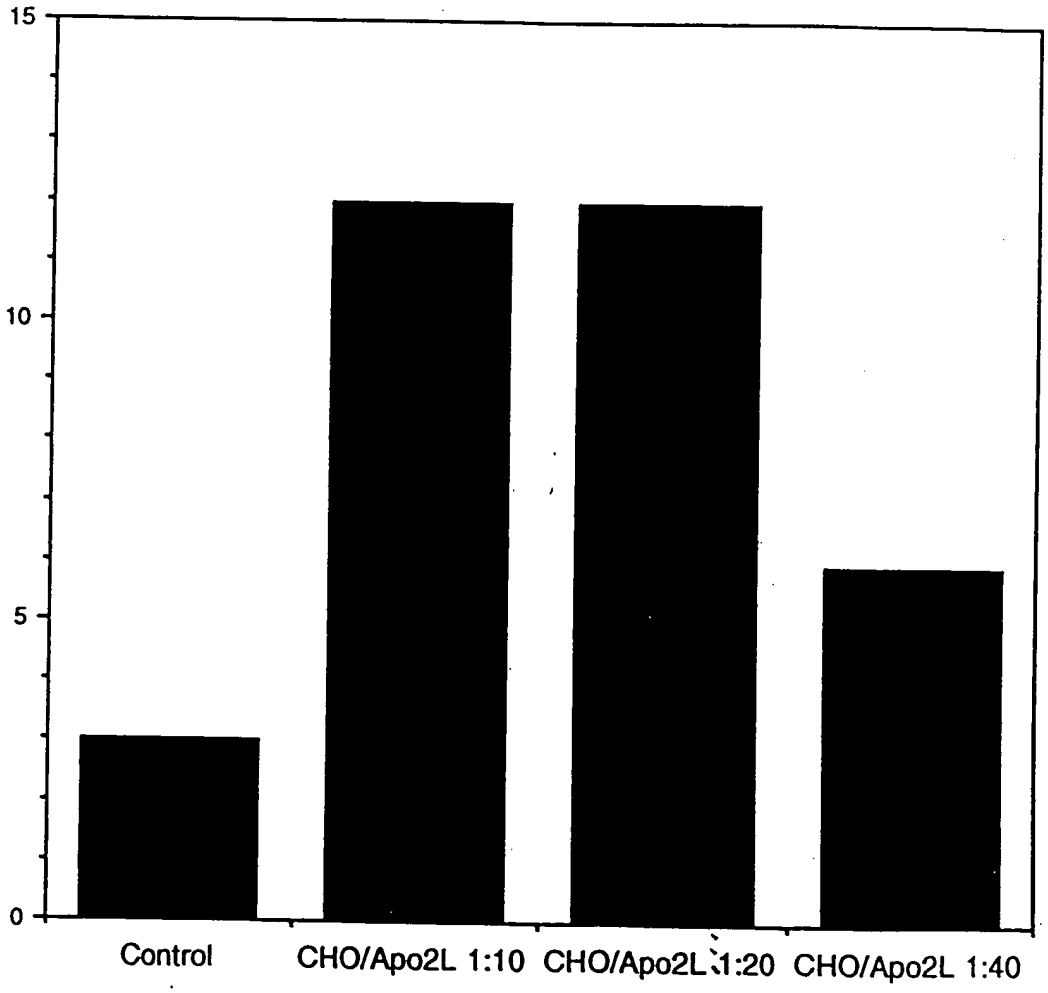

Apoptotic cells/field
15
10
5
0
Control
CHO/Apo2L 1:10
CHO/Apo2L 1:20
CHO/Apo2L 1:40

Fig. 14E

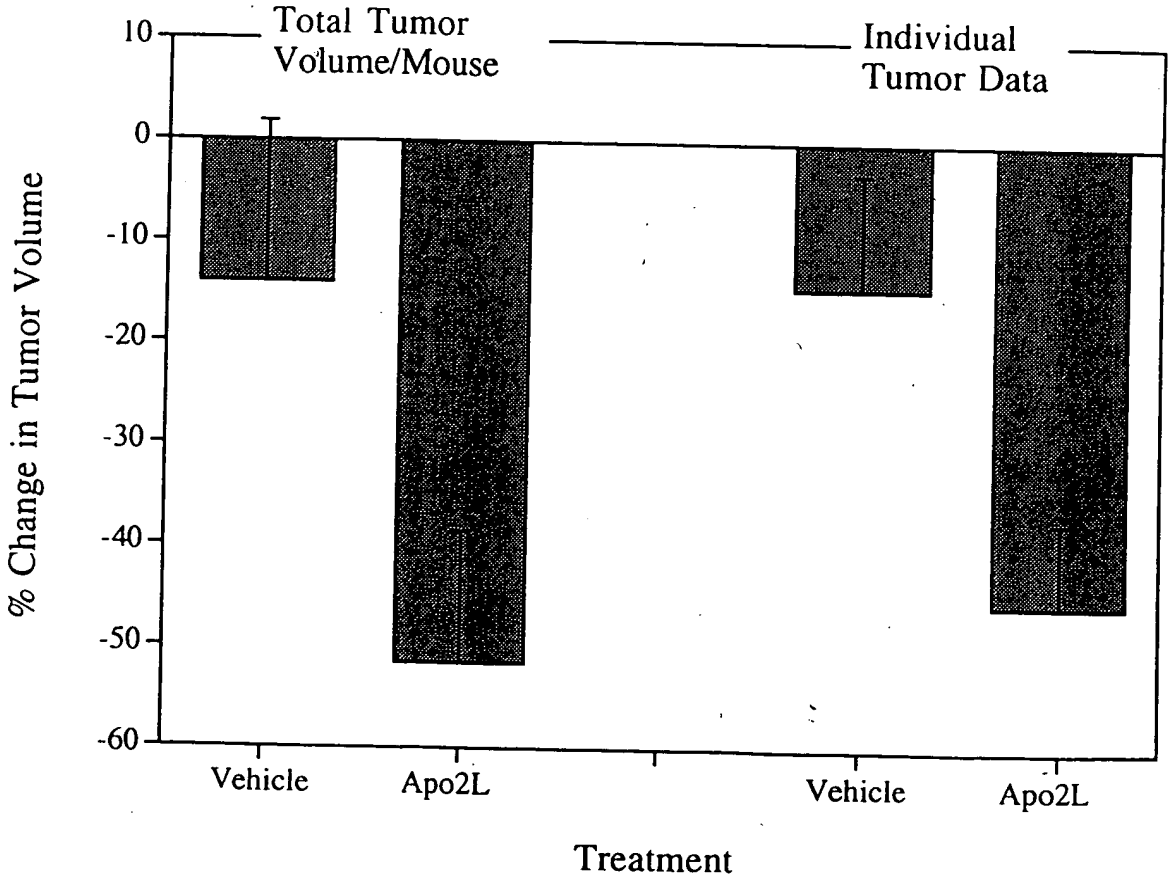

Total Tumor Volume/Mouse
Individual Tumor Data
10
0
-10
-20
-30
-40
-50
-60
% Change in Tumor Volume
Vehicle
Apo2L
Vehicle
Apo2L
Treatment

Fig. 15